

Perceptions Matter: The Correlation between Teacher Motivation and Principal Leadership Styles

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The need for school principals to implement teacher-supportive leadership practices is paramount to students' learning. The present study synthesized the disparate fields of educational leadership and educational psychology in an effort to investigate the effects of principal leadership styles on teacher motivation. Specifically, the effects of the principal leadership styles of authoritarian, democratic, or laissez-faire practices on teachers' motivation were investigated from the theoretical framework of Self-Determination Theory (SDT). Results from a survey indicated that principals' leadership styles were significantly related to the combined dependent variables of teacher autonomy, relatedness, competence, and social isolation. Specifically, the results of post hoc tests indicated that teachers reported higher levels of autonomy, relatedness, and competence under a principal who was perceived to demonstrate a democratic leadership style. Moreover, administrators who were interviewed shared ways in which they supported teachers' autonomy, relatedness, and competence in addition to other motivational strategies.

Keywords: *principal leadership, teacher motivation, Self-Determination Theory*

The fundamental purposes of leadership include “providing direction” and “exercising influence” (Leithwood, Louis, Anderson, & Wahlstrom, 2004; Louis, Leithwood, Wahlstrom, & Anderson, 2010). However, these qualities can seem deceptively basic if they are not contextualized within the complex nature of learning organizations such as schools. There are many facets of a school, including its interpersonal nature, which make the relationships between administrators and teachers a vital component. Moreover, school leaders indirectly affect student learning through the practices by which they lead teachers and create the organizational climate of the school (Lezotte & McKee, 2006). Therefore, the need to implement teacher-supportive leadership practices is paramount to the success of students’ learning and must remain as an imperative concern of instructional leaders. However, retaining highly qualified educational leaders is challenged by the alarmingly popular trend of teachers who transfer between schools, move to another position within education, or leave the profession altogether for reasons that are often within a school leader’s purview (Ingersoll, 2003; Ingersoll & May, 2011; National Commission on Teaching and America’s Future, 2007; Rinke, 2008).

Research findings regarding the effects of school administrators’ leadership styles suggest that leaders who work collaboratively with teachers, solicit their input, include them in decision-making processes, encourage open communication, and create a positive school culture maintain supportive relationships with teachers. As a result of these strong relationships, schools yield greater student achievement (Marzano, Waters, & McNulty, 2005; Supovitz, Sirinides, & May, 2010). Price (2015) also found that the interactions between principals and teachers related to teachers’ perceptions of student engagement, which was mediated by trust in teachers and administrative support. In reference to Leithwood et al. (2004), Lezotte and McKee (2006) stated, “Leaders contribute to student learning most significantly in an indirect way.

Specifically, leaders exert a positive or negative influence on individuals who, in turn, directly influence student learning (teachers) and on the relevant features of their organizations (schools)” (p. 265). This claim echoed the findings of Hallinger and Heck (1998), who acknowledged the impact on student achievement when principals engaged teachers and other stakeholders in the decision-making process. Although a positive relationship between school administrators and teachers garners a positive learning environment, teachers report leaving or moving within the profession due to limited influence and autonomy (Ingersoll, 2003; Kersaint, 2005). Moreover, there is a paucity of research regarding the impact of principal leadership styles on teachers’ motivation, specifically their own personal needs for autonomy, competence, and relatedness (Bellibas & Liu, 2017; Collie et al., 2013; Eyal & Roth, 2010).

Further, Murphy (2002) advocated for viewing school leadership from a renewed perspective. Specifically, Murphy (2002) questioned the traditional practice of choosing between either the strict adherence to theoretical concepts developed by academics, or the implementation of applied practices based solely on classroom applications. Thus, in an effort to implement Murphy’s (2002) suggestions regarding effective school leadership reform, one intent of this study was to synthesize the theoretical research as well as more applied practices from both the fields of educational leadership and educational psychology.

Therefore, the overarching goals of this research study were threefold. First, we made extensive efforts to merge both theoretical and empirical research from both the educational leadership and educational psychology disciplines. Second, we explored the relationship between principals’ leadership styles and teachers’ motivation at work. Third, we built a bridge between academic research and educational leaders by calling upon their expertise to elucidate practical implications of the teacher-reported findings rendered from this study.

Theoretical Framework

Northouse (2012) posited that school principals' overall actions, behaviors, and beliefs can be characterized as stemming from a democratic, laissez-faire, or an authoritarian leadership style. Within the context of these different leadership styles, authoritarian leaders limit collaborative efforts with teachers and make unilateral decisions which are communicated through directives and monitored for fidelity in a micromanagement-oriented manner. This top-down approach allows principals with authoritarian leadership styles to maintain power and control over individuals in their work environment. Alternatively, laissez-faire principals abdicate all control and responsibility to their staff who, in turn, are left without any leader or guidance. In contrast, democratic leaders extend moderate influence because they share the decision-making power with teachers by creating a work environment based on open communication, collaboration, and valued input (Northouse, 2012). Northouse (2012) asserted that individuals are not beholden to one style of leadership as it can change by circumstance; however, leaders do tend to favor one style over the others.

In recent decades, the field of educational psychology has undergone a significant change in its theoretical orientations regarding motivation as it moved from a more behavioral view of motivation to a more cognitive-information processing view of motivation. In other words, as time has progressed, researchers have begun to explore internal motivational drives rather than focusing solely on environmental conditions. Several motivational theories of this nature were founded on individuals' competence and control beliefs, from which Self-Determination Theory (SDT) evolved.

SDT was founded on the principle of human development that individuals are innately driven to grow psychologically while also integrating experiences and personality to form a

sense of self (Ryan, Connell, & Deci, 1985, as cited in Schunk & Zimmerman, 2006). While in pursuit of intrinsic satisfaction, “individuals tend naturally to seek challenges, to discover new perspectives, and to actively internalize and transform cultural practices” (Ryan & Deci, 2002, p. 3). Ryan (1995) described SDT as “a dialectical view that involves acceptance of natural integrative tendencies and yet acknowledges the power of social contexts to fragment or ‘overchallenge’ them ...” (p. 403). Given the interpersonal nexus of the teaching profession, SDT aligns accordingly as it recognizes our innate desire to meet basic psychological needs through a social medium. Individuals’ drive, or intrinsic motivation, produces internal satisfaction because their needs are fulfilled (Ryan & Deci, 2000, 2009). These basic psychological needs include feelings of autonomy, competence, and relatedness. In the SDT perspective, autonomy refers to the need for choice and control, competence is the feeling of impacting one’s environment and achieving valued outcomes, and relatedness is the sense of belongingness and feeling valued by others (Deci & Ryan, 2000; Niemiec & Ryan, 2009).

Further, one’s social experiences greatly affect intrinsic motivation through external structures that either support or stymie one’s sense of competence, which is mediated by autonomous choices (Ryan & Deci, 2000). Therefore, an individual who experiences choice and the opportunity for self-direction and gains competence through his or her participation will also maintain or increase intrinsic satisfaction. Within his value-focused paradigm of defining a democratic community, Murphy (2002) described a school leader as a “community builder” who “must learn to lead by empowering rather than controlling others” (p. 188). Further, Huber (2004) suggested that one of the primary principles of school leadership was the support of autonomy. Originally referenced in social psychology theory, the oft-cited terminology in the field of educational leadership to describe the concept and practice of relinquishing authority to

other members within a learning organization (e.g., teachers) is “distributed leadership” which, when implemented, can result in a much improved work environment due to increased self-determination (Gronn, 2002; Harris & Spillane, 2008; Leithwood, 2011; Leithwood et al., 2004; Leithwood, Patten, & Jantzi, 2010; Louis et al., 2010).

In an extensive investigation into teacher shortages, Ingersoll (2003) utilized the Schools and Staffing Survey (SASS) and the Teacher Follow-up Survey (TFS) to gather data on “movers” (teachers who transfer to a different school) and “leavers” (teachers who completely leave the profession). Among the movers and leavers, 29% reported reasons of job dissatisfaction. When the reason for dissatisfaction was disaggregated, 17% of all of the individuals who reported job dissatisfaction claimed “lack of faculty influence and autonomy” as a cause for their career change. Kersaint (2005) used data gathered by the U.S. Department of Education and concluded that 52% of teachers who transferred schools attributed the reason to “a lack of influence over school policy.” Collie, Shapka, and Perry (2012) found that teachers’ perceptions of school climate, partly measured by their decision-making power and collaborative relationships with colleagues, significantly predicted variables such as their sense of teaching efficacy and job satisfaction.

Many educational systems are structured in such a way that limit teachers’ autonomy and, in turn, perceived competence. Lortie (1975) discussed the “pyramid of authority” in which the subordinate members are educators and the superordinate hierarchical ranks consist of school board members who “do not belong to their occupation” and school administrators “acting on authority delegated by school boards” (pp. 4, 6). Further, school district officials have the authority to take curriculum or instructional decision-making power away from teachers. When recounting stories from her qualitative study of elementary teachers, Smith (1991) referenced an

example of third grade teachers who were told by district leaders (e.g., school board members) to implement more test-like teaching after standardized test results revealed a lag in their students' scores. Even though the score discrepancies were not statistically significant, the teachers "neither questioned the edict nor offered alternatives from their own expertise and experience" (Smith, 1991, p. 11).

Furthermore, the national adoption of high-stakes testing itself is another controlling factor that teachers experience. Equipped with experience from working with the U.S. Department of Education in efforts to create national curriculum standards, Ravitch (2010) called attention to flaws of the accountability movement. Ravitch (2010) acknowledged her initial support for the No Child Left Behind (NCLB) legislation because it seemed to support the standards movement which she promoted. However, the momentum for educational reform warped into a performance-driven focus rather than being learner-centered, which would sustain achievement. Ravitch (2010) reflected that "what once was an effort to improve the quality of education turned into an accounting strategy: Measure, then punish or reward" (p. 16). Within the realm of Self-Determination Theory (SDT), Ryan and Deci (2009) claimed that the implementation of consequences, such as punishment and rewards, would likely ebb individuals' feelings of autonomy and satisfaction.

Self-Determination Theory has the potential to refresh our perspective of school leadership styles and teacher motivation. For example, Collie et al. (2013) found that this motivational theory was a relevant framework for investigating teachers' motivation. Specifically, the researchers found that teachers' perceptions of the degree to which their principals supported their autonomy related to their psychological need satisfaction. Moreover, Eyal and Roth (2011) examined the relationship between the motivation type of Israeli

elementary school teachers and their educational leaders' styles. They found a significant and positive relationship between administrators' transformational leadership style and teachers' autonomous motivation. However, the SDT approach to teacher motivation is not widespread in academic literature, and unlike the aforementioned studies, the current study investigated the relationship between principals' leadership styles and teachers' feelings of all three basic psychological needs (autonomy, competence, relatedness) through the theoretical alignment between the fields of educational leadership and psychology. Furthermore, one of the authors had experience conducting research through the theoretical perspective of SDT, then developed an interest in educational leadership research, only to find a dearth of overlap between the fields that often focus on the same context for learning – a school setting. Thus, the first goal of this study was to merge the research from the traditionally disparate fields of educational psychology and educational leadership in an effort to elucidate the relationship between principal leadership styles and teacher motivation (see Table 1).

Table 1.

Alignment between Basic Psychological Needs and School Leadership Styles

School Leadership Style	Autonomy	Competence	Relatedness
Authoritarian	controls teachers and their actions	gives praise and criticism based on personal standards	does not encourage communication among teachers
Democratic	guides teachers while working with them	believes teachers are capable of doing work on their own	encourages communication among teachers
Laissez-Faire	makes minimal or no effort to influence teachers and their actions	makes minimal or no effort to give feedback	makes minimal or no effort to establish relationships with others

Also unique to this study, both quantitative and qualitative methodological approaches to data collection were used in an effort to further reify the theoretical constructs of educational leadership and educational psychological motivational theories using a mixed methodological approach. It was hypothesized that teachers who perceived their principal as having a democratic leadership style would also report greater psychological needs satisfaction (perceived competence, autonomy, and relatedness) at work than teachers who perceived their principal as having an authoritarian or laissez-faire leadership style. Moreover, in an effort to further bridge the research between educational theory and practice, there was a driving focus to frame the findings rendered from the study into pragmatic practices that could be implemented by school leaders.

Method

This was a sequential mixed methods study in that findings rendered from an online survey taken by teachers were discussed with administrators during an interview. Specifically, teachers in the participating school systems were asked through survey items to describe their perceptions of their principals' leadership style and their motivation at work. After the quantitative survey data were analyzed, the results were shared in aggregate form with the administrator participants. The qualitative data which emerged from the administrator interviews were also analyzed for the threefold purpose of structural corroboration, gaining richer data, and identifying implications of the survey findings.

Participants

Teacher participants. Participants were 136 K-12 teachers from two school districts in the southeast United States. One participating school system housed 14 schools, including seven elementary schools, two middle schools, and five high schools which served approximately

9,700 students. The median income of the population residing within this rural community was approximately \$40,000 with an average free and reduced lunch rate of 56.2%. Approximately 73% of the student population was White, followed by 23% Black, 3% Hispanic, and 1% Asian. The second participating school system was made up of seven schools with five elementary schools, one middle school, and one high school which served about 3,700 students. Also a rural community, the median income was approximately \$30,000 and the average percent of students who qualified for free or reduced lunch was 69%. About 51% of the students were White, 36% were Black, and 13% other.

All teachers who were employed by the two school systems were invited to participate in the study. An online survey was directly sent to 786 K-12 teachers via their school system E-mail address. The first 20 respondents to complete the online survey were rewarded by allowing them to select a children's charity that would receive a \$5 donation from an author. Teachers were also informed that if 150 teachers completed the online survey, then the most frequently selected charity would receive an additional \$150. The resulting response rate was approximately 25.2%, with 198 teachers responding to the survey. However, only the responses from 136 teachers were included due to reasons such as incomplete surveys and the criterion that teachers must have worked under their current principal for more than one year, which would allow teachers time to more fully experience and evaluate the leadership styles of their principal.

The majority of teacher participants were female (81.6%), Caucasian (83.7%), taught elementary grades Kindergarten-Grade 6 (45.8%), and reported a master's degree to be their highest degree completed that was relevant to the field of education (48.2%). In the survey, participants were also asked to select a description that best defined their current teaching position. A large majority of teacher participants (78.7%) selected general education teacher

(i.e., teach main content subject areas such as math, reading, science, and/or social studies). On average, the participants of this study had been teachers for 15.3 years ($SD = 8.5$). Further, participants had been employed as a teacher at their current school for an average of 10.5 years ($SD = 7.2$) and worked under their current principal for an average of 6.9 years ($SD = 5.3$).

Administrator participants. School administrators were purposefully selected and recommended by school district leaders in participating systems who met the criteria of being a principal who was “highly effective in supporting teacher motivation and student learning.” One participant did not meet the criterion of holding the position as a school principal at the time when recommendations were requested. Instead, the participant served as an administrator at the school-district level but was recruited to participate in this study because of her recent experience as a principal in one of the participating school districts. The basic demographic information regarding completed years of experience, race/ethnicity, and job positions is outlined in Table 2. The actual names of participants have been replaced with pseudonyms to maintain confidentiality. The average number of completed years as an administrator among the participants was 7.8 ($SD = 2.9$). There were five female participants and one male participant. Three of the participants had elementary and secondary school administrative experience whereas the other three participants’ experience was limited to an elementary setting. Four participants were White and two participants were Black.

Table 2.

Demographic Information of Administrator Participants

Participant	Years as Administrator	Race/ Ethnicity	Job Position	
			2014–2015 School Year*	2013–2014 School Year**
Amy	4	White	Elementary School Principal	Elementary School Assistant Principal
Barbara	8	White	Elementary School Principal	Elementary School Principal
Brandon	10	Black	High School Principal	High School Principal
Cathy	12	Black	Director of Administrative Services	Elementary School Principal
Sally	7	White	Elementary School Principal	Elementary School Principal
Susie	6	White	Elementary School Principal	Elementary School Principal

* = Year interviews were conducted

** = Year teacher surveys were administered

Procedures and Measures

Teacher survey. Teachers in participating school systems were sent two recruitment E-mails and one reminder E-mail that invited them to participate in a study by completing an online survey designed to “understand [their] experiences of school leadership and job satisfaction” and that told them their “input [was] greatly appreciated and needed to help administrators and researchers understand different dynamics of teacher motivation”. The E-mails also estimated that the survey would take approximately 20 minutes to complete and included a link to the online survey, which was created using Qualtrics software (<http://www.qualtrics.com>).

The survey included nine demographic questions regarding the number of years at their current school, years of teaching experience, years working under their principal, school district, grade levels and subjects currently taught, gender, race/ethnicity, and highest degree completed. Teachers’ perceptions of their principal’s leadership style was measured using the Teacher Perceptions of Principal Leadership Styles Questionnaire (an adapted instrument from the

Leadership Styles Questionnaire, Northouse, 2012) which consisted of 18 items. Moreover, teachers' perceptions of their motivation at work were measured by the Basic Psychological Needs at Work Scale which included a total of 21 items (Ilardi, Leone, Kasser, & Ryan, 1993). The two instruments were alternately presented to teacher participants in the online survey to limit the effects of exposure influence over how participants responded.

Teacher Perceptions of Principal Leadership Styles Questionnaire. Northouse (2012) developed the Leadership Styles Questionnaire as an instrument for individuals to measure their personal style of leadership using a 5-point Likert scale that ranged from 1 meaning “strongly disagree” to 5 meaning “strongly agree”. For the purposes of this study, we adapted Northouse’s (2012) instrument to measure teachers’ perceptions of their principal’s style of leadership. To reflect the purpose of the present study, the adapted instrument was named the Teacher Perceptions of Principal Leadership Styles Questionnaire. The survey directions and items were changed to measure teachers’ perceptions of their principal’s leadership style. The directions for completing the instrument read, “The following questions concern your feelings about your principal’s style of leadership. Principals have different styles in dealing with teachers, and we would like to know more about how you have felt about your encounters with your principal. Remember that your administrators and colleagues will never know how you personally respond to the questions.” In terms of an item example of how the instrument was adapted, Item 2 originally stated, “Employees want to be a part of the decision-making process” while the adapted item on the survey read, “My principal wants me to be a part of the decision-making process in my school.” Moreover, specified survey items measured each type of principal leadership style which included democratic leadership, laissez-faire leadership, and authoritarian

leadership. The scores for each style were computed by calculating the mean, and the type of leadership style experienced by each teacher was then determined by the highest average.

An exploratory factor analysis (EFA) using a principal component extraction method and a varimax rotation was conducted to determine what underlying structures existed between measured variables on the Teacher Perceptions of Principal Leadership Styles Questionnaire. Prior to the analysis, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.876, and Bartlett's test of sphericity was significant ($p < 0.001$). The EFA for leadership styles produced a four-component solution which was evaluated using eigenvalue, scree plot, and variance criteria. These four components accounted for 64.35% of the total variance. Components 1, 2 and 3 (labeled Democratic Leadership Style, Laissez-Faire Leadership Style, and Authoritarian Leadership Style) accounted for 23.02%, 20.23, and 14.38% of the variance, respectively, whereas Component 4 only accounted for 6.70% of the variance and was the highest factor loading for only one item. Therefore, it was decided to only retain three components, leaving the total accounted variance at 57.64%. The 12 survey items that were retained after conducting an EFA are outlined in Table 3.

Table 3.

Items Retained for the Teacher Perceptions of Principal Leadership Styles Questionnaire

Item #	Item	Factor Coefficients	Item-Total Correlation
Democratic Leadership Style			
8	My principal knows that I prefer supportive communication from him/her.	.785	.618
5	My principal provides me with guidance without pressure.	.742	.643
14	My principal helps teachers to find their "passion."	.733	.714
2	My principal wants me to be a part of the decision-making process in my school.	.685	.624
Laissez-Faire Leadership Style			
6	My principal stays out of the way of teachers as we do our work.	.820	.721
12	My principal gives me complete freedom to solve problems on my own.	.800	.682
18	In general, my principal believes it is best to leave teachers alone.	.767	.732
3	In complex situations, my principal lets me work problems out on my own.	.717	.657
9	My principal allows me to evaluate my own work.	.639	.656
Authoritarian Leadership Style			
10	My principal believes that teachers need direction and feel insecure about their work.	.815	.734
11	My principal thinks I need help accepting responsibility for completing my work.	.752	.679
1	My principal acts like I need to be supervised closely, or I am not going to do my work.	.572	.651

Basic Need Satisfaction at Work Scale. Developed by Ilardi et al. (1993), the Basic Need Satisfaction at Work Scale directly measures the theoretical constructs of Basic Psychological Needs Theory (BPNT), a subtheory of Self-Determination Theory which states that individuals need to experience support of autonomy, competence, and relatedness in their environments in order to grow psychologically (Ryan & Deci, 2002). According to BPNT, need satisfaction varies based on different social domains in which one is a part. In this study, teachers' psychological need satisfaction in their work environment was measured based on a 7-point Likert scale that ranged from 1 ("not at all true") to 7 ("very true"). The directions for completing the items were not altered from the original instrument and read, "The questions concern your feelings about your job during the last year. (If you have been on this job for less than a year, this concerns the entire time you have been at this job.) Please indicate how true each of the following statement is for you given your experiences on this job." Participating teachers were also reassured that their administrators and colleagues would not know how they personally responded to the questions. Further, the scale was comprised of three subscales which measured each psychological need. Higher scores indicated participants' greater psychological need satisfaction.

An EFA using a principal component extraction method and varimax rotation was also conducted for this scale which was an appropriate factor analysis approach for the study's sample based on the KMO result of .847 and Bartlett's test of sphericity result of $p < 0.001$. Using the Kaiser-Guttman retention criterion of eigenvalues greater than 1.0, the analysis rendered a five-component solution accounting for 59.87% of the total variance. The scree plot criterion also supported the retention of five components. However, the fifth component included the highest factor loading for only one item and accounted for just 5.68% of the total

variance; therefore, it was not retained. The original survey components (Autonomy, Relatedness, Competence) were retained in addition to a new component that emerged from the EFA which was labeled Social Isolation, leaving the total variance accounted for at 54.18%. See Table 4 for the 15 survey items that were retained after the EFA.

Table 4.

Items Retained for the Basic Need Satisfaction at Work Scale

Item #	Item	Factor Coefficients	Item-Total Correlation
Autonomy			
13	My feelings are taken into consideration at work.	.820	.748
1	I feel like I have a lot of input into deciding how my job gets done.	.741	.624
8	I am free to express my ideas and opinions on the job.	.709	.626
20	There is not much opportunity for me to decide for myself how to go about my work. (reversed scored)	-.616	.564
Relatedness			
21	People at work are pretty friendly towards me.	.738	.592
6	I get along with people at work.	.719	.653
9	I consider the people I work with to be my friends.	.588	.574
2	I really like the people I work with.	.577	.536
17	I feel like I can pretty much be myself at work.	.576	.543
15	People at work care about me.	.571	.585
18	The people I work with do not seem to like me much. (reversed scored)	-.560	.655
Social Isolation			
16	There are not many people at work that I am close to.	.799	.715
7	I pretty much keep to myself when I am at work.	.791	.682
Competence			
3	I do not feel very competent when I am at work. (reversed scored)	.829	.714
19	When I am working, I often do not feel very capable. (reversed scored)	.737	.584

Administrator interview protocol. Creswell (2007) characterized a case study as “a qualitative approach in which the investigator explores a bounded system (a *case*)...and reports a case *description* and case-based themes” (p. 73). The case study for our research was bounded by individual participants and their professional experiences to build a case of perspectives regarding teacher motivation and school leadership practices. Guided by a case study approach to inquiry, administrators were asked what strategies they used at their schools to support teachers’ motivation, their reaction to the findings from the teacher survey, and what the implications of the survey findings were for school leaders seeking to support the motivation of their teachers. Interviews were conducted one-on-one and in person, with each individual participant and one author in a private setting (i.e., an office). The interview protocol consisted of instructions for the interviewer, ice-breaker questions, open-ended guiding questions, and a final statement of appreciation for participating (Creswell, 2007).

Reliability measures included reviewing interview records for transcription mistakes and ensuring consistency in coding through peer debriefing with an outside researcher. Validity strategies included the disclosure of negative or contradictory findings and member checking with participants by verbally summarizing their responses during the interview to ensure an accurate understanding of their responses and to ask if they wished to modify or qualify the information they shared.

Results

Results from Teacher Surveys

The independent variable, teachers’ perceptions of leadership styles, was categorical (i.e., category determined by style with highest score) and the dependent variables, teachers’

perceptions of their psychological needs satisfaction, were continuous. Therefore, a multivariate analysis of variance (MANOVA) was conducted to determine the relationship between the variables. Table 5 outlines the frequency and percentage of participants who reported having a principal with a democratic, laissez-faire, or authoritarian leadership style.

Table 5.

Descriptive Statistics for Leadership Styles

Leadership Style	Frequency	Percent
Democratic	57	41.9%
Laissez-Faire	64	47.1%
Authoritarian	15	11%

Statistical significance for all analyses was determined using an alpha of .05. The Box's Test for Homogeneity revealed that equal variances could be assumed, $F(20, 6235.885) = 1.253$, $p = .075$; therefore, Wilks' Lambda test statistic was used in interpreting the results. MANOVA ($N = 136$) results indicated that leadership styles were significantly related to the combined dependent variables of autonomy, relatedness, competence, and social isolation, Wilks' $\Lambda = .609$, $F(8, 260) = 9.148$, $p < .001$, $\eta^2 = .220$. According to Cohen's (1988) criteria, the multivariate effect size was small to medium.

Univariate ANOVA and Scheffe post hoc tests were conducted as follow-up tests. ANOVA results indicated perceived principal leadership styles were significant for autonomy, $F(2, 133) = 38.547$, $p < .001$, $\eta^2 = .367$. Also significant were relatedness, $F(2, 133) = 12.103$, $p < .001$, $\eta^2 = .154$, and competence, $F(2, 133) = 3.547$, $p = .032$, $\eta^2 = .051$. However, teachers' feelings of social isolation were not significant, $F(2, 133) = 2.055$, $p = .132$, $\eta^2 = .030$. The Scheffe post hoc analysis revealed that teachers' autonomy under a democratic leadership style

significantly differed from teachers who experienced laissez-faire and authoritarian leadership styles. Additionally, teachers' need for autonomy under laissez-faire leadership differed from those under authoritarian leaders. Moreover, teachers' feelings of relatedness significantly differed under democratic and authoritarian leadership styles and between laissez-faire and authoritarian leadership styles; however, there was not a significant difference between democratic and laissez-faire leadership styles with regard to teachers' need for relatedness. In terms of teachers' feelings of competence, the only significant difference was between democratic and authoritarian principal leadership styles. Table 6 presents the means and standard deviations for each leadership style by autonomy, relatedness, competence, and social isolation.

Table 6.

Means and Standard Deviations for Leadership Styles by Basic Psychological Needs

Leadership Style	Autonomy		Relatedness		Competence		Social Isolation	
	$F = 38.547$		$F = 12.103$		$F = 3.547$		$F = 2.055$	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Democratic	5.360	0.992	5.927	0.737	6.184	1.194	3.009	1.540
Laissez-Faire	4.797	1.097	5.674	0.927	6.023	1.271	3.422	1.703
Authoritarian	2.667	1.121	4.746	0.674	5.200	1.590	3.867	1.407

Results from Administrator Interviews

The analysis of the qualitative data rendered from interviews with administrators involved the systematic search for recurrent themes that emerged from the data, or content analysis (Patton, 2002). Based on Strauss' (1987) guideline for conducting open coding and as

explained by Berg and Lune (2012), we began the coding process by asking ourselves questions related to our study's purpose (i.e., What overlaying constructs were we investigating? What themes could capture the relationships between the constructs? How was the content viewed through the theoretical lenses that shaped the literature review?). Next, we color coded the text in order to identify how the overarching constructs embedded in our research questions were presented in the content of the interviews. That is, we read through the data with the purpose of looking for elements of leadership styles and teacher motivation then color coded them accordingly. This process provided us with a visual representation of triangulating these data with the constructs measured by the teacher survey as well as when the constructs overlapped with one another to form a relationship.

Also in keeping with Strauss' (1987) open coding guidelines, we minutely coded the data with many phrases, categories, terms, and types of interpretive language. According to Berg and Lune (2012), "this effort [later] ensures extensive theoretical coverage that will be thoroughly grounded" (p. 366). We also repetitively coded the interview data which allowed us to move through the open coding process more quickly and see initial patterns of saturation. This information provided the groundwork for developing the codebook which began with collapsing the data into more parsimonious categories, or axial coding.

The codebook provided us with a reference guide for coding data in a consistent manner as well as a means for tracking our analytical thinking. In the process, we first created a chart of the themes that emerged from axial coding and aligned them with their corresponding color-coded constructs. We then labeled each theme as "a priori" (deductively coded from the study's theoretical lenses) or "emergent" (inductively coded from the participants' responses). Next, we

developed definitions from the literature or participants' explanations, depending on the type of code, and included illustrative examples to clarify the code's meaning.

A computer program, Atlas.ti, was used to determine frequency counts of codes and to view all participant quotes associated with each code for comparative purposes and in order to extrapolate contextual meanings of the codes. Moreover, after the interviews were coded, the task at hand was to restructure the original story told by the principals into a narrative transformed by analysis and interpretation (Kvale & Brinkmann, 2009). The following data analyses and discussions are organized by the themes that developed from participants' responses during the interviews.

Relatedness, autonomy, and competence. Relatedness, the most prevalently discussed motivational strategy, encompassed many elements of the relationship between the administrator and teacher such as knowing teachers' needs (e.g., what motivates them) or their personal life (e.g., family dynamics, background), and supporting teachers' feelings of value. Moreover, administrators also discussed relationships between colleagues (e.g., mentor/mentee relationship). For example, Cathy stated the following:

That is the biggest thing—building that relationship, really getting to know your teachers...I hear administrators say that 'I don't care about their background' but I like to know as much as I need to know because it helps me understand.... For example, there was a teacher, she's loud. That's just her personality, and she was misunderstood a lot of times because she came from a large family. Coming from a large family, especially in an African American culture, you talk and it's just normal to talk...and it sounds like you're yelling. I'm not saying that that's acceptable but you can understand that a little bit better and know the person...sometimes she was judged like 'oh she's just

mean, she's ornery.' No she's not, she's used to having to talk over everybody else in this large family.

It is interesting to note that the administrator participants mentioned relatedness more frequently during the interviews than any other strategy for supporting teachers' motivation. However, teacher participants reported on the online survey that their democratic principals supported their feelings of competence the most (see Tables 6 and 7).

Table 7.

Frequency of Strategies Discussed by Administrators to Support Teachers' Motivation

Code	Amy	Barbara	Brandon	Cathy	Sally	Susie	Frequency	Percentage of Strategies
autonomy	2	1	1	1	1	0	6	11.3%
competence	1	1	1	0	0	0	3	5.7%
relatedness	3	1	2	5	5	3	19	35.8%
professional reflection	2	1	2	0	2	3	10	18.9%
rewards	1	1	1	2	2	1	8	15.1%
social comparison	0	2	1	0	1	0	4	7.5%
lead by example	1	0	0	1	0	1	3	5.7%

Professional reflection. The second most frequently mentioned motivational strategy that the administrator participants said they implemented was leading teachers in professional reflection for improvement purposes. All of the participants except for one discussed this strategy. Barbara and Sally talked about teachers who they perceived as needing professional improvement. The participants discussed showing the teachers their students' performance data, which indicated low performance trends, before asking teachers to reflect on their practices in an

effort to deter teachers from, as Sally stated, continuously “blam[ing] the group of children” for low scores. Susie, Amy, and Brandon talked about using feedback gathered from classroom observations to lead teachers through self-reflection. Susie stated:

And we also do a lot of one on one meetings with them. One of the best things that we've done this year I think is I've gotten in the classrooms more to do observations which appears to be “ooo, she's coming in the classroom” but the instructional coach and I have been doing them together and...so we immediately, that day, have like a feedback meeting with them and the very first thing that we do is, is I tell them all the good things that I saw and, you know, we try to make it positive and then so much the negatives are things that “hey, we see a couple of areas that we need to work on.” So nobody has left out of here just crushed and felt like they were beat down where if they had come in here and we had said, “Boom, boom, boom, this is bad. Oh yeah, by the way, we really like the student engagement part.”

Rewards. As the third most frequently discussed motivational strategy, the rewards given to teachers included tangible items such as supplies (e.g., ink cartridges, paper) and food items (e.g., donuts and juice) in addition to nontangible reinforcements such as praise, acknowledgement, and release from professional obligations (e.g., not having to attend Parent Teacher Organization meeting, “leave early” passes). Some administrators also provided jeans passes (written permission to wear blue jean pants for a day) as a reward to teachers because, as Brandon stated, “Most teachers [will] walk on water for a jeans pass.” However, Barbara stated that “you have to look at the culture and see what they want, what you can do to help them.” Furthermore, Cathy shared a caveat to the use of praise.

You can cause dissension sometimes if you're just praising second grade and don't ever praise fifth grade or sixth grade. So I try to make sure that, it's just like if you use equity sticks [laughing], you know just kind of finding okay, well I praised sixth grade, let me praise kindergarten because sometimes if you just ... even though third grade may be the runners. They may be the shining stars but if you're just constantly praising them and guess what? "She likes third grade" so you kind of have to embrace everybody and find the good and make sure that there's balance in recognizing.

Social comparison. Barbara, Brandon, and Sally reported the use of creating situations in which teachers compared how they performed in relation to their colleagues as a way to judge their abilities and, hopefully, improve their practice. This strategy is founded on the concept known as social comparison in the field of educational psychology (Wigfield et al., 2009). Some discussed creating conditions in which teachers would strive for improvement because one of their colleagues received recognition for being highly effective. For example, the following comment made by Sally was still coded as social comparison although she stated that she was not intentionally comparing teachers.

[Teachers] may not always like it but if we get back data, you're gonna see everybody in your grade level. We're going to talk about that and I'm not doing it to compare one to the other but if I've got one that is up here [moves hand up high], I'm trying to build this relationship where you're gonna find out what they're doing.

Lead by example. Based on their comments, it was important to Susie and Cathy to lead their faculty by setting a good example. Specifically, Susie said she tried to "be positive about all kinds of things" to model positivity to her faculty. As stated below, Cathy wanted to show her teachers that she was willing to do anything herself that she asked of them by sharing:

I lead by example in saying that and making sure that I don't expect teachers to do anything that I wouldn't do so I like to be a part of what they're doing. To me, I think that that's a great motivation. Like for kindergarten, I want to help make like the little background scene or whatever, you know, just doing little things like that sometimes just to motivate them to say, "Hey she's with us. She's involved. She's actively engaged."

Discussion

School leadership has a profound impact on a learning organization, namely its members which include students and teachers (Leithwood, 2011; Leithwood et al., 2004; Lezotte & McKee, 2002; Louis et al., 2010; Marzano et al., 2005). Teachers have the greatest influence on student learning, followed by school administrators (Leithwood et al., 2004; Louis et al., 2010). Northouse (2012) described different styles of leadership as democratic, authoritarian, or laissez-faire. A school leader with a democratic style shares decision-making power, fosters collaboration, and values input from others which, in turn, can lead to teachers who are more motivated, satisfied, committed, and creative (Northouse, 2012). Within the context of Self-Determination Theory (SDT), an individual's intrinsic motivation is best supported when their basic psychological needs for autonomy, competence, and relatedness are met (Ryan & Deci, 2000, 2009). The nurturance of teachers' psychological needs are vulnerable to the working environment created by a school leader; however, the nature of a democratic leader is to support these needs.

Although these findings in current literature offer valuable insight, there remains a paucity of research that explores the complexity of these relationships within a sample from the viewpoints of both school leaders and teachers and through the convergence of theoretical lenses provided by both the educational leadership and educational psychology fields for the ultimate

goal of equipping educational practitioners with practical strategies. Therefore, this need informed the purpose of the study.

The current study showed that teachers' perceptions of their principals' leadership styles were related to their motivation at work. These findings aligned with the outcomes from other research studies (Collie et al., 2013; Eyal & Roth, 2011). However, this study uniquely examined how three different leadership styles related to all three basic psychological needs according to SDT. Specifically, post hoc tests indicated that teachers reported higher levels of autonomy, relatedness, and competence under a democratic leader.

Support of these psychological needs also emerged from administrators' responses; however, the amount of support for each need differed between the participant groups. The highest mean score in terms of teachers' self-reported psychological needs under a democratic leadership style was competence (6.184), followed by relatedness (5.927), then autonomy (5.360). In other words, the teachers who participated in this study and indicated they worked for a principal with a democratic style also most strongly felt that their feelings of competence were supported. However, participating administrators in the same school systems seemed to have a democratic style but seldom discussed supporting teachers' competence as one of the motivational strategies they used (frequency count = 5.7%). In fact, competence was the psychological need least discussed by administrators.

One reason for these discrepant findings could be due to the ambiguous nature of describing competence support through an interview. In other words, teachers can clearly reveal their personal thoughts through a self-report survey but this psychological need may be harder, compared to the other needs, for administrators to describe in terms of their overt actions. For example, autonomy support can be described as providing choice or sharing decision-making

power and relatedness can be described by the ways relationships are established; however, competence support is difficult to describe because it is implicitly revealed by stating trust in teachers to make competent choices or because its description relies on more passive actions such as telling teachers they are competent. Another reason could be that there was a misalignment between the administrators' perceptions of teacher motivation and the teachers' experiences of motivation, which supports the need for a practice discussed by one administrator participant—soliciting feedback from teachers.

Another interesting result regarding teachers' psychological needs related to Ryan and Deci's (2002) statement that "relatedness typically plays a more distal role in the promotion of intrinsic motivation than do competence and autonomy, although there are some interpersonal activities for which satisfaction of the need for relatedness is crucial for maintaining intrinsic motivation" (p. 14). The importance of relatedness could be theoretically supported because of the interpersonal nature of the school environment. Also, Collie et al. (2013) empirically supported the significance of teachers' relatedness with students and colleagues, and the teacher survey results from this study indicated that relatedness with "people at work" was important. However, another important element to this study, interviews with administrators, provided findings specific to teachers' relatedness with administrators. Based on the statistical significance found between teachers' perceptions of leadership styles and support of their relatedness as well as the frequency of times in which relatedness was mentioned as a motivational strategy (35.8%), which was the highest among all the strategies discussed by administrators, this psychological need did not play a distal role in the support of teachers' motivation but rather a crucial facilitative role.

Limitations

Some limitations to this study involved its methodological approaches. For example, the findings from the teacher survey and interviews with administrators required self-reported responses; therefore, the conclusions and implications of findings from this study relied on participants' truthfulness which could have been altered by social desirability to respond in ways perceived by participants as more acceptable. Also, one administrator participant pointed out another limitation to the study which involved the teacher sample. Amy suggested that the teacher participants in the study may not have been representative of teachers at large because some teachers may not "take the time to do the survey because they're too busy making sure their kids are getting what they need." Lastly, the generalizability of the findings from the study were limited by the sampling procedures, non-experimental research design, and population from which the participants were recruited.

Recommendations

A driving focus for this study was to expound recommendations for school leaders seeking to support teachers' motivation at work. Based on the findings from the current study, it is recommended that school leaders:

1. Share decision-making power with teachers.
2. Provide teachers with opportunities for choice and self-direction.
3. Solicit feedback from teachers and implement changes based on reasonable and valid suggestions.
4. Foster open and collaborative communication with and among teachers.
5. Provide time for teachers to collaborate with colleagues.
6. Build relationships with teachers and express their value to the learning community.

7. Express trust in teachers' competence to complete professional responsibilities successfully.

This research study addressed both theoretical and pragmatic significance to the relationships between educational leadership styles and teacher motivation. However, there is still a need for further research to investigate the theoretical and methodological approaches that were taken in this study. For example, much attention has been devoted to exploring student motivation and achievement through the lens of Self-Determination Theory (Ryan & Deci, 2009), but a need exists for this theory to continually expand and encompass teacher motivation as well (Bouwma-Gearhart, 2010; Collie et al., 2013; Eyal & Roth, 2010).

Moreover, another promising area of research that honors the need to reach across different fields of study is exploring how higher education programs in administration and teacher leadership can work in tandem. Greenlee (2007) asserted, "Inevitably, future administrators and teacher leaders must share the particular knowledge and skills that are manifest as educational leadership. Thus they might be educated together without the barriers of traditional university programming with its emphasis on the continuing role of the principal as the solitary instructional leader" (p. 52). The current study theoretically and empirically supported the need for school administrators to share decision-making power with teachers in order to promote their motivation; however, what this collaborative relationship actually looks like could be better examined and defined within the context of programs designed to teach educational leadership from the roles of both administrators and teachers.

Conclusion

The purpose of the present study was threefold. First, the theoretical and empirical research from the disparate fields of educational psychology and educational leadership were

merged. Second, we explored the relationship between teachers' perceptions of their principals' leadership styles and their motivation at work. Third, we bridged the findings of academic researchers and educational leaders by calling upon their expertise to elucidate the practical implications of teacher-reported findings rendered from the study.

This study made a unique contribution as it synthesized the educational leadership research into the three leadership styles of authoritarian, democratic, or laissez-faire practices with the educational psychological research into the psychological needs of autonomy, competence and relatedness as specified by Self-Determination Theory (SDT). The results of the present study indicated that teachers' perceptions of their principal's leadership style were in fact related to the combined dependent variables of teacher autonomy, relatedness, competence, and social isolation. The results of the qualitative interviews with administrators indicated that relatedness was the most prevalently discussed motivational strategy. In conclusion, the results demonstrated that the manner in which teachers perceived their principal's style of leadership related to the motivation they experienced at work. Moreover, principals' perceptions affected the strategies they employed to promote teachers' motivation. In other words, perceptions matter.

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Appendix

Administrator Interview Codebook

Code	Code Type (Source)	Definition	Data Exemplar(s)
autonomy	a priori (rooted in self-determination theory; Ryan & Deci, 2000)	choice and the opportunity for self-direction	So them [teachers] having a voice in what's happening at the school is a huge, I think, motivation to them to keep them engaged. Now, it's not always now you go do but you have a voice in the different activities...
competence	a priori (rooted in self-determination theory; Ryan & Deci, 2000)	effectively engage in the surrounding environment	I try to identify the issues that are in the school themselves and then for them [teachers] as the panel of experts, because they have been here much longer than I have, to come up with solutions.
relatedness	a priori (rooted in self-determination theory; Ryan & Deci, 2000)	personal relationship between administrator and teacher(s) or between teachers (i.e., colleagues, mentors/mentees); feelings of value and belongingness	I believe in being relational which is hilarious because I'm not a touchy feely person either but they know I care. If they're out, I try to send a text "Hey, are you doing okay?" You know, I genuinely care and they respond to that. Each person, new person has a mentor that teaches the same content area and they have a person who's in their department as well so they kind of have two people to talk to. Well, some of the things that I do is try to help teachers to feel like they are an integral part of the school.
professional reflection	emergent (Amy, Barbara, Brandon, Sally, Susie)	deliberate reflection on professional practices for the purpose of learning and improvement	We ask them, you know, what can...how can you improve? From our walkthroughs, this is what we saw in your walkthrough, what do you think about this? And so, we're trying that one thing we talked about more recently is having them video themselves and that was one of my questions that I asked them as a whole, you know, how many have you ever saw your class through a video? And a lot of them haven't and so it's something that we're considering changing now we're trying to set up a schedule and start videoing their

Code	Code Type (Source)	Definition	Data Exemplar(s)
reward	a priori (rooted in self-determination theory; Ryan & Deci, 2000)	providing a desirable external outcome (i.e., praise, acknowledgement, object) for the purpose of encouraging a desirable behavior	<p>classes for them to see themselves. So I think they'll learn a lot from that.</p> <p>If a teacher has done something that has really stood out, that is beyond their normal job description, I try to send them a thank-you and then CC it to the staff so that everyone can see it and hopefully try to get on board and help out in the same manner.</p>
social comparison	emergent (Barbara, Brandon, Sally)	comparing how a person performs in relation to others as a way to judge the person's abilities	<p>[Teachers] may not always like it but if we get back data, you're gonna see everybody in your grade level. We're going to talk about that and I'm not doing it to compare one to the other but if I've got one that is up here [moves hand up high], I'm trying to build this relationship where you're gonna find out what they're doing.</p>
leading by example	emergent (Amy, Cathy, Susie)	administrator models desirable behaviors	<p>I lead by example in saying that and making sure that I don't expect teachers to do anything that I wouldn't do so I like to be a part of what they're doing. To me, I think that that's a great motivation.</p>